

ABSTRACT

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A method for modifying a wild strain of an entero-
invasive Shigella to produce a modified strain of
Shigella that can be used for making a vaccine against
the wild strain of Shigella. The genome of the wild
10 strain of Shigella is transformed so that it cannot
substantially invade cells of a human host and cannot
spread substantially within infected cells and from
infected to uninfected cells of the host and cannot
produce toxins which will kill substantial numbers of the
15 host's infected, as well as uninfected, cells. A first
gene of the wild strain of Shigella, coding for a protein
necessary for the Shigella to invade cells of the host,
and a second gene, coding for a protein necessary for the
Shigella to spread within infected cells and between the
20 infected and uninfected cells of the host, are
mutagenized.

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